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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,996	07/29/2003	Shirley M. Benson	3799	8556
22474	7590	09/06/2005	EXAMINER	
DOUGHERTY, CLEMENTS, HOFER, BERNARD & WALKER 1901 ROXBOROUGH ROAD SUITE 300 CHARLOTTE, NC 28211				AGARWAL, MANUJ
ART UNIT		PAPER NUMBER		
3764				

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/629,996	BENSON, SHIRLEY M.	
	Examiner Manuj Agarwal	Art Unit 3764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-20 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 29 July 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Priority

The later-filed application must be an application for a patent for an invention which is also disclosed in the prior application (the parent or original nonprovisional application or provisional application); the disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged. However, the provisional application upon which priority is claimed fails to provide adequate support under 35 U.S.C. 112 for claims 4,6-9,11,13, and 15-19 of this application. The provisional application merely discloses a braided rope, knots, and their means of attachment to one another. Matter such as various sources of resistance, composition of the rope, handlebar and anchoring unit selections were not disclosed.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. The following claimed structures, namely, (1) sources or resistance, namely a system of weights or counterbalances, spring, hydraulic cylinder; (2) group of handheld units from which a selection is to be made; (3) bungee cord, cable or chain (4) various compositions of rope claimed, must

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be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The abstract of the disclosure is objected to because it contains legal phraseology such as "disclosed" and "means," in lines 1 and 3 respectively, and because its title is inappropriate. Applicants may use either "Abstract" or "Abstract of

the Disclosure" as a heading. Appropriate corrections are required. See MPEP § 608.01(b).

The disclosure includes the following informalities: On page 3, the title "summary" is misspelled.

Claim Objections

Claims 1, 5 and 17 are objected to because of the following informalities: Claim 1 recites that the anchoring end is integrally attached to the anchoring unit. The claim also recites that the anchoring end is capable of being attached to a source of resistance. These limitations seem to contradict one another. Is the anchoring end attached to the anchoring unit, or the source of resistance?

The term "anchoring end" in claim 5 should be replaced with "anchoring unit." Claim 17 should refer to claim 15 as its parent claim instead of 16. It has been assumed that Claim 17 depends on 15 and the claims have been analyzed as such.

Claim 19 contains the trademark/trade name Vectran. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the

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present case, the trademark/trade name is used to identify/describe liquid crystal polymer and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 101

Claim 10 is rejected under 35 U.S.C. 101 because it is directed to non-statutory subject matter, a human being. Further, limiting the source of resistance to be a human being is viewed as requiring the human being as part of the invention.

The Assistant Secretary and Commissioner of Patents and Trademarks, Donald J. Quigg, issued a notice in the Official Gazette stating, "A claim directed to or including within its scope a human being will not be considered to be patentable subject matter under 35 U.S.C. 101. The grant of a limited, but exclusive property right in a human being is prohibited by the Constitution." 1077 OG 24 (1987), reprinted in 1146 TMOG 24 (1993).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,2,3,4,5,11, 12 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Balne (3,068,002).

In Figure 7, Balne shows an exercising device consisting of an elongated rope (12'), an end attached to a stationary object, and an end terminating in a pair of handle members (16'). The handle members are fastened to the end of rope (12') by rope 14' by means of loop 79, which forms loops 80 upon attachment, hereon referred to as the mother's handhold unit. The length of rope 12' can be adjusted by disengaging the lock in box apparatus 84.

Regarding claim 1, the elongated rope 12' is analogous to the connecting line, and the terminus that contains the mother's handhold unit is analogous to the mother's end. Similarly, the remaining terminus is termed the anchoring end, and its terminus is termed an anchoring unit and is capable of being attached to a source of resistance. The length of the elongated rope can be adjusted by selectively engaging or disengaging the lock apparatus in box 84 in order to facilitate a child birthing function.

Regarding Claims 2 and 3, the respective handle members (26') are analogous to wrist loops and can be slid around an individual's wrists to function as a "braking mechanism."

Regarding Claims 4 and refer to Figure 1. Balne discloses an exercise device with "connecting line" 12, with "mother's end" and "anchoring end" termini, a mother's handhold unit manifested as handle members 26 and an anchoring unit manifested as foot stirrup 32. Foot stirrup 32 is structured as a loop and is inherently capable of being

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attached to a source of resistance. The length of "connecting line" 12 can be adjusted to "different 70 heights to provide sustained resistance," permitting the desired child birthing function.

Regarding Claim 11 and 12, refer back to Figure 7. Loop 80 interlocks with loop 79 thereby securing the ropes to each other and forming a knot. Due to the fact that the two structures are composed of rope material, they are inherently braided, or intertwined. Furthermore, loop 80 exists as a knob, for it is a sufficiently rounded protuberance.

Regarding Claim 20, refer to Figure 1. Balne discloses rope 12 having a first and second end and a pair of wrist loops 16.' Knot 54 is a protuberance formed from rope material and therefore inherently braided, and is sufficiently rounded to be identified as a knob. The device also comprises a "first loop," foot stirrup 32, which is integrally connected to connecting rope 12 at an end. At the remaining end, the braided knob 54 is further connected to said two wrist loops by way of "rope V-arms," or short rope 14.

Claims 13,14,15, 17, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Davidson (5,674,159).

Davidson discloses an exercise machine consisting of a "connecting line" rope (200), terminating at one end with dual handgrips (100), analogous to mother's handhold unit. At the other end exists a handlebar (400) that can be grasped by a second person and built into this handlebar is a harness (500) to secure the handlebar

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for one-person use, thereby making this terminus an equivalent "anchoring unit." The two respective termini of the rope correspond to the anchoring end and mothers end, respectively.

Regarding Claims 13 and 14, Davidson states his exercise machine is made of rope on page 3 lines 50-60.

Regarding Claims 15, 17 and 18, polyolefins are synthetic fibers defined as classes of organic substances prepared by the polymerization of olefins (hydrocarbons containing one double bond per molecule). Polypropylene is one such polyolefin that is produced from the polymerization of propylene, a hydrocarbon with a single double bond. This product is constructed in a synthetic manner, thus producing a synthetic fiber. On page 8, line 44 Davidson details the specification of his rope and states that it is to be manufactured from polypropylene. Following the evidence provided above, a logical progression makes it evident that if a rope is composed of polypropylene, it is inherently a polyolefin and a synthetic fiber.

Claims 6 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Simonson (6,770,015).

In Figure 1, Simonson discloses an exercise device 10 with a sliding assembly 16. He shows a cable 54 having a first end 56 attached to an end of guide column 18, an intermediate portion 58, and a second end 60 terminating in a handle 62. Guide column 18 is a component of sliding assembly 16, which is coupled to weight stack 14, a resistance assembly.

It is evident that Simonson's cable assembly is analogous to the presently disclosed invention. His cable 54 serves as a "connecting line," joining the second end 60, or the "anchoring end," with handle 62, or the "mother's handheld unit." Cable 54 further comprises a mother's end and an anchoring end as well, both of which are arbitrary special designations. The sliding assembly 16 includes a sliding element 28, which enables sliding assembly 16 to vertically displace between upper and lower positions (see figure 2). In a lower position, this device is capable of performing the equivalent child birthing function.

Regarding Claims 6 and 7, weight stack 14 is attached to guide column 18, which is coupled with the first end of cable 56. This assembly enables the weight stack to act as a counterweight, providing resistance to the pulling force of a pregnant person.

Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Clark (5,234,392).

Clarke teaches a hydraulic track exerciser that includes lead 15 with belt 17 attached and connected to the runner's waist, where the runner's movement is opposed by the resistance provided by a spring mounted hydraulic cylinder 13 (page 1, lines 63-68). Lead 15 in an analogous structure to the "connecting line," and it terminates in a "mother's end" that contains the waist belt 17, which can be utilized as a mother's handheld unit. The remaining end of the rope is termed the anchoring end, and it contains an area deemed an anchoring unit, which is attached to a source of resistance.

Regarding Claim 9, the source of resistance provided by Clarke is a hydraulic cylinder 13 that serves to resist the pulling force exerted on the opposing end of lead 15.

Claim 16 is rejected under 35 U.S.C. 102(b) as being anticipated by Goodwin (2,951,702).

Goodwin discloses an exercising device that includes a cable 30 connected to handle 34 and a "resiliently loaded member (page 1 line 3)." It is evident that his device is an equivalent structure to the disclosed invention, for cable 30 suffices as a "connecting line," terminating at one end as a "mother's end" that terminates in handle 34, which is equivalent to the mother's handheld unit. The remaining terminus of cable 30 is termed the anchoring end, and it is composed of an anchoring unit that is attached to a source of resistance, the "resiliently loaded member."

Regarding Claim 16, Goodwin further discloses that cable 30 may be made of "nylon, cotton webbing or cotton rope (page 1 lines 66-68)." Cotton is a naturally occurring fiber.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 102(e) as being unpatentable over Balne in view of Tremayne (2004/0053756).

The Balne reference does not include a source of resistance manifested as a spring. Tremayne discloses an exercise device that includes a resilient means and a length attached to a handle. In paragraph 15 of page 1, Tremayne states that the resilient means is an elastic cord or spring. It would have been obvious to one having ordinary skill in the art at the time the invention was made to attach a spring to Balne's exercising device as, for example, illustrated in Tremayne in order to provide an effective source of resistance to the pulling force on the opposing end of the contraption.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Balne in view of Knudsen et al. (2004/0069132).

The Balne reference does not include a synthetic rope comprised of liquid crystal polymers. Attention is directed to the Knudsen et al. reference which discloses a rope 10 made from a blend of HMPE filaments 16 and liquid crystal polymer filaments 18 (see page 2, paragraphs 0021 to 0023). Knudsen states that the said liquid crystal polymers are selected from the group consisting of lyotropic polymer filaments and thermotropic polymer filaments, the latter of which are commercially available under the tradename Vectran from Celanese Advanced Materials, Inc. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the rope of Balne's exercising device as, for example, illustrated in Knudsen et. Al. with one

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assembled from liquid crystal polymers manufactured by Celanese Advanced Materials, Inc. under the trademark Vectran for such a modification would afford the advantage of a high modulus and tenacity as well as a soft feel.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manuj Agarwal whose telephone number is (571) 272-4368. The examiner can normally be reached on Mon to Fri 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory L. Huson can be reached on (571) 272-4887. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Manuj Agarwal
Patent Examiner

MA



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